

POISONOUS SNAKES of SOUTHEASTERN ASIA

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INFORMATIONAL BULLETIN No. 23

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SOME FACTS ABOUT POISONOUS SNAKES

Almost everyone is afraid of snakes. Even the harmless kinds are regarded with loathing and often with terror. Fear of snakes is caused partly by our unfamiliarity with them but mostly as the result of a lot of nonsensical fiction and misinformation.

No one expects you to love snakes. It is a good idea to leave them alone. But there is no need for you to fear snakes once you know something about them, their habits, how to identify the dangerous kinds, the simple precautions to take to prevent snakebite and the first aid measures to use in the very rare emergency of being bitten.

Actually, the chances of being bitten by a poisonous snake are very small. For example, deaths from lightning in the United States amount to almost three times the deaths caused by snakebite. In Australia, where there are many kinds of poisonous snakes, the death rate from snakebite averages only 12 persons per year out of a population of 6,500,000. The danger of death from snakebite is considerably less than the possibility of being killed in a jeep wreck or getting shot by accident.

You can dismiss as exaggerations most of the popular literature you've read and the stories you've heard about snakes. Don't believe all the hair-raising tales about the number, size and ferocity of the local snakes in the area where you are based. Natives know all the poisonous kinds but, in addition, they will tell you that many harmless species are deadly. For example, in the United States, the common little puff adder is considered almost universally to be dangerous. This is nonsense; the puff adder is non-poisonous and will hardly ever bite.

Statistics on the number of people bitten by poisonous snakes are unreliable. This is especially true in the wilder areas where dangerous snakes are most numerous. Furthermore, the fatalities are almost always among people who go about barefoot and get bitten on the feet or ankles. For a soldier wearing shoes and leggings, living in a camp where any snake that is seen is promptly killed, the danger of being bitten by a poisonous snake is small compared to the hazards of malaria, cholera, dysentery or other diseases. Mosquitoes are a thousand times more dangerous than snakes.

Soldiers living in camps and barracks, even where snakes are relatively plentiful, may seldom see one. Men working or fighting in the jungle may see them occasionally. Those engaged in clearing ground, cutting grass or jungle, or digging up soil may see a good many snakes, but the chances of getting bitten by a poisonous kind are very small.

There are many reasons why snakes are a minor hazard. First of all, most snakes are harmless. Then, too, snakes are not numerous. Because all snakes feed on other animals, such as rats, rabbits or birds, each snake must have a fairly large area for his hunting ground in order to find enough food. This limits the number of snakes. Furthermore, the danger from most of the few poisonous kinds of snakes is much overrated. It depends mainly on the size

of the snake. Usually, only a large specimen, over two feet long, is really dangerous to a grown man, and these large extremely dangerous snakes are not common. The bite of the smaller snakes is not likely to be fatal.

In addition, nearly all snakes avoid man if possible. It is reported that the king cobra of Southeast Asia, the bushmaster and the tropical rattlesnake of South America, and the mamba of Africa sometimes aggressively attack man, but even these snakes do so only occasionally. Most snakes get out of the way (some of them do it slowly) and seldom are seen.

The distance at which a snake may bite has often been exaggerated. This striking distance seldom is more than half the snake's length; in the large snakes, about a third of the length, and in some snakes, even less. However, some of the small vipers have been known to strike their full length. The distance a cobra can strike is easy to judge since the part raised is never bent into deceptive S-curves but merely is jabbed forward and downward; commonly the distance is almost one foot; in a 12-foot king cobra the striking distance may be as much as 3 feet. Generally, you must be at least within a long step of even a large snake before he can bite you; a normally alert person will be able to see the snake before he gets within striking range. Most bites occur when a snake is stepped on by accident.

All these facts do not mean that no soldier is going to be bitten or that poisonous snakes are harmless creatures which will make fine pets. It is stupid and highly dangerous for an inexperienced person to pick up a snake unless he is positive the snake is harmless.

No man need fear snakes who knows these facts about them. You can minimize the possibility of being bitten by keeping your eyes open, by keeping your hands off *all* snakes, by learning how to identify the dangerous kinds in your own local area, by following the simple precautions for avoiding snakes, and by knowing what to do in the very rare event you are bitten.

Identification of Kinds of Poisonous Snakes

It is not easy to identify a poisonous snake. There is *no single* characteristic which distinguishes a poisonous snake from a harmless one except the presence of poison fangs and glands. You can determine the presence of these parts without danger only in dead specimens, and even then the fangs may be hard to find.

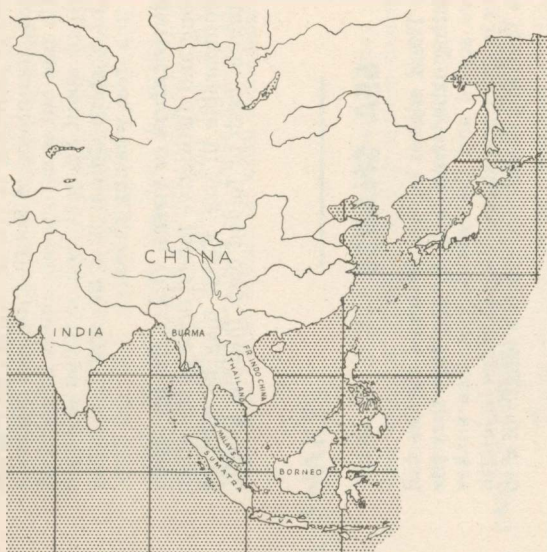
The notion that all poisonous snakes have lance-shaped or triangular heads or some other warning feature is wrong and dangerous. While it is true that many dangerous snakes do have a lance-shaped head, many do not.

The only sure way to identify dangerous snakes is to learn to know and recognize the poisonous kinds on sight in the particular area in which you happen to be based. The inside of this bulletin illustrates and describes the important kinds found in your area. In any given locality you are not likely to see more than one or two kinds and you can learn to identify them further by studying dead specimens. The ability to distinguish a poisonous snake from a harmless one will minimize the danger of snakebite and help to eliminate fear.

About Pythons

Although they are not poisonous, it is worth knowing some facts about pythons, boas and other constrictors. Some of these are large snakes which may grow to 25 feet in length. In spite of the many hair-raising tales concerning these reptiles, they are timid and rarely, if ever, attack man. Boas are found in the American tropics; pythons occur in the tropics of Africa and Asia. They sometimes attack small children but will not deliberately tackle anything that is too big to swallow. A man is too big for even the largest python. If caught or cornered, these snakes may fight back by wrapping their coils around the attacker. If left alone, they are about as dangerous as a collie dog.

DISTRIBUTION OF POISONOUS SNAKES OF SOUTHEASTERN ASIA



Cobras: Found throughout the area as far north as Foochow in China.

Kraits, Coral Snakes and Vipers: Found throughout the area south of a line drawn from Shanghai to Chengtu. Only one viper, Russell's viper, occurs in the East Indies, the Malay Peninsula and Formosa.

Pit Vipers: Found throughout the area. These are the only poisonous snakes in China found north of the Shanghai-Chengtou line.

Sea Snakes: Found along all coasts as far north as Foochow; rare in Chinese coastal waters.

Precautions Against Snakebite

Always wear shoes and leggings or high boots in areas where snakes are common—most snakebites occur below the knee.

Don't walk around barefoot, especially at night.

Don't poke your hands into holes in the ground. Wear gloves and take special care when clearing ground or brush. Watch where you put your hands in rocky places or on stone walls. Look before you touch—many snakebites occur on the hands.

Don't handle a live snake or play with it unless you are absolutely certain the snake is harmless. It takes an expert to handle a dangerous snake. You flirt with death when you pick up an unknown snake.

Keep your eyes open—develop "snake sense". You must be within a long step of even the largest snake before it can bite you. Alertness pays off in safety.

FIRST AID FOR SNAKEBITE

The first problem in treating snakebite is to determine whether it has been caused by a poisonous snake. Many harmless snakes will bite in self-defense. The only reliable way to tell whether the snakebite is poisonous is to identify the snake. However, the wound itself may give some clues.

One good indication of the bite of a poisonous snake is the intense pain which results almost immediately. A severe bite from a harmless snake will hurt no more than a wound made with any sharp instrument. The bite of a viper will cause immediate swelling. A cobra bite may have no local symptoms except for an intense burning pain in the area of the wound.

The appearance of the wound gives additional clues. Vipers do not really "bite". They stab with their fangs. The wound usually consists of two small punctures, generally half an inch or more apart. Sometimes there may be only one puncture if the snake partially misses or has one fang missing. Coral snakes, cobras, mambas and kraits often hang on and chew; the result may be one, two or more puncture marks. Harmless snakes usually have several teeth so that a bite may consist of several punctures formed in a semi-circle. However, it is not always easy to distinguish for certain between the bites of a harmless and a poisonous snake.

If you are bitten by a harmless snake, treat with iodine as an ordinary wound. If the bite is identified as that of a poisonous snake and you can get to a medical officer in a few minutes, apply a tourniquet and let the medical officer administer first aid. If no expert medical aid is available, undertake the following first aid measures immediately—*speed is essential*.

* * *

Place a tourniquet tightly above the bite. Loosen the tourniquet every 15 minutes for one minute at a time.

* * *

Wipe the skin around the bite free of dripped venom. Sterilize skin with antiseptic, such as tincture of iodine.

* * *

Sterilize a sharp knife or razor blade by holding it in the flame of a match or wiping with iodine. Make an x-cut through each fang mark; in fleshy tissue, make each cut about $\frac{1}{2}$ inch long and $\frac{1}{4}$ inch deep; in thin tissue over bones make shallow cuts parallel to bone. Be careful not to cut large blood vessels, tendons or nerves.

* * *

Suck the venom out of the wound. Use a snakebite pump, if available, or cup the mouth of a heated bottle over the wound. If no equipment is available, suck with the mouth through a rubber tissue laid over the bite or suck with the mouth directly on the bite—be sure to spit out the venom and rinse out the mouth periodically. The venom will do no harm unless there are sores in the mouth. Keep up the suction until the swelling ceases to progress.

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If possible, kill the snake and take it to the medical officer so that he can tell what kind of antivenin to use.

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Give morphine to relieve pain. Don't give alcohol under any circumstances.

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Don't put anything into the wound. Potassium permanganate or other chemicals do more harm than good.

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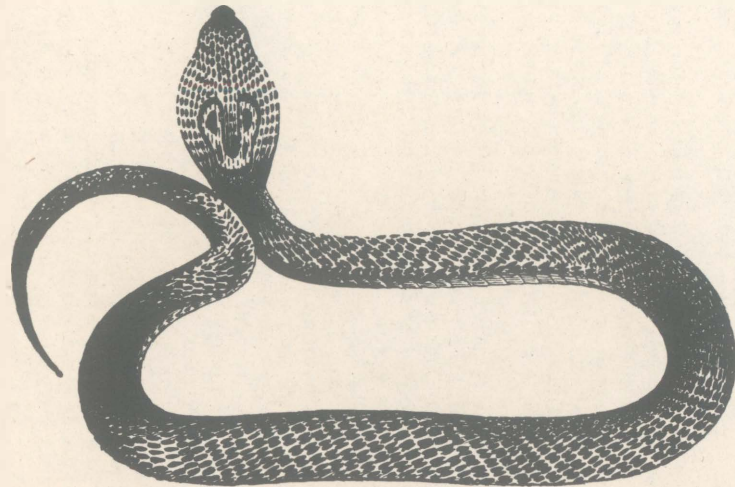
Carry the victim to a medical officer. Don't let him run or even walk.

THE POISONOUS SNAKES OF SOUTHEASTERN ASIA

IDENTIFICATION AND HABITS

THE COBRA FAMILY

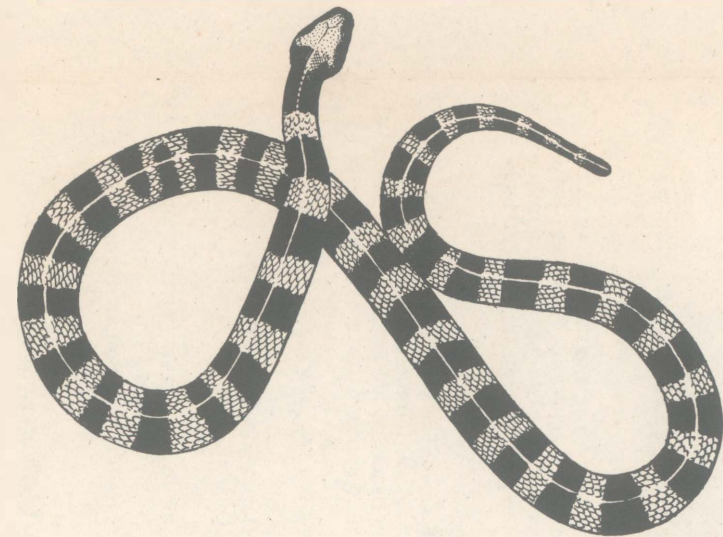
COBRAS



Description: The typical combat attitude of the raised head and spread hood is the easiest characteristic by which the cobras can be identified. The most common species is the Indian cobra (shown), which may grow as long as 6 feet. The "spectacle" mark on the hood is typical of this species; the mark may consist of only one spot or of two without the bridge. Cobras usually (but not always) form a hood when angered. The king cobras are the largest of all poisonous snakes; they average 10 to 12 feet long; some may reach 18 feet. For the proportion of the snake, the hood formed by the king cobra is narrower than that of other cobras.

Habits: Cobras are the most common poisonous snakes in much of the region; they are particularly numerous in India where natives do not destroy them because of religious beliefs. Cobras are found most frequently in rocky places or in old buildings where they feed on rats. The most common species are not particularly vicious. However, king cobras may attack deliberately, especially if guarding eggs. Cobras are slow snakes; they always raise the head to strike. They can be killed with a stout stick swung in a plane parallel with the ground, aimed at the head or raised part.

KRAITS



Description: Most kraits are brightly banded in black and white or black and yellow. They have a ridged backbone on which there is a row of enlarged scales. The head is small and not much larger than the neck. Kraits average 4 to 5 feet long but may reach six.

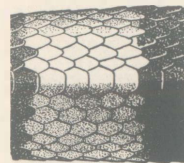
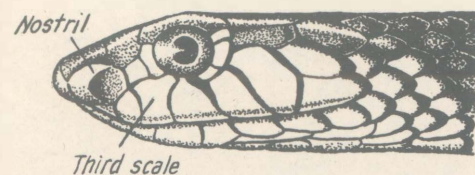
Habits: The common krait of India moves around mostly at night. It lives in open country rather than in thick jungle brush, and is often found near inhabited places and on trails at night. The banded krait (shown) prefers thick jungle. All kraits are very poisonous. However, they are inoffensive snakes who will not bite unless stepped on. Unlike the cobra, kraits do not raise the head to strike, nor do they strike in a loop like a viper—they simply flip the head to one side or the other and bite. Fatalities result mainly from stepping on these snakes at night with bare feet. Shoes should be worn at all times.

CORAL SNAKES

Description: Usually have bright red or pink bellies and brightly colored bands on the back. There are 3 or 4 kinds of coral snakes in this region, generally averaging under 2 ft.; one species may grow 4 ft. long.

Habits: Coral snakes are inoffensive; they stay hidden and are not inclined to bite unless disturbed. They bite in the same manner as kraits. Coral snakes seldom are seen and are the cause of very few fatalities.

POSITIVE IDENTIFICATION OF COBRA FAMILY (Cobras, Kraits and Coral Snakes)



These snakes can be identified positively by examining the scales of a dead specimen. If the third scale on the upper lip touches both the nostril scale and the eye, the snake is a cobra or coral and is poisonous.

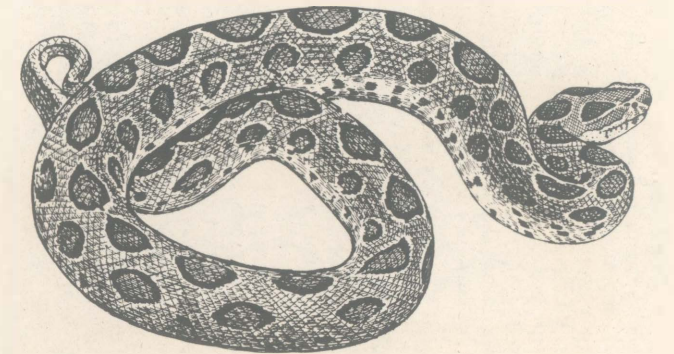
If there is also a row of enlarged scales down the ridged back, the snake is a krait.

VIPERS

Description: Vipers usually have heads which are much wider than the neck. The most common and most dangerous species is Russell's viper (shown). It is a thick snake which grows up to 5 feet long. There are conspicuous markings on the back, consisting of three rows of spots formed by black rings bordered with white and with reddish or brown centers.

The saw-scaled viper is another dangerous species. These are small snakes, about 2 feet long, generally light in color with dark quadrangles. The side scales are rough and somewhat sawtoothed. When disturbed, these snakes writhe vigorously and make a hissing noise.

Habits: Russell's viper prefers open, sunny spots, but can be found almost anywhere, except in thick jungle. It is not particularly vicious and will not strike unless it is considerably irritated. The saw-scaled viper, though small, is vicious and bites readily; snakes only a foot long have been known to kill. It prefers desert or dry areas and is not found in thick jungle.

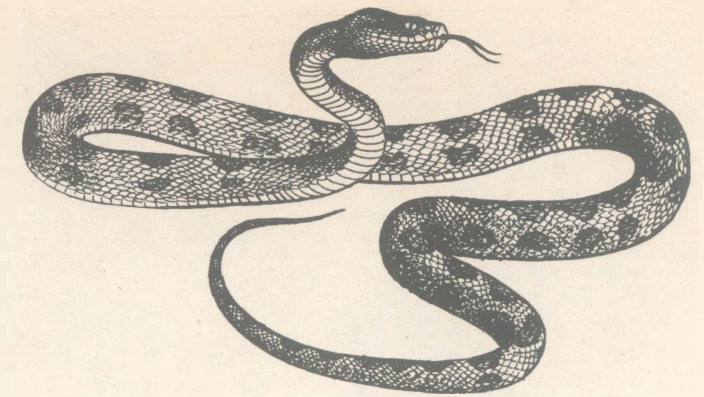


PIT VIPERS

Description: Pit vipers in this region either may be slender or thick-bodied. Usually, they have heads which are much wider than the necks. These snakes commonly are brown with dark blotches; some kinds are green. These snakes take their name from the deep pit located between the eye and the nostril.

Habits: India has about a dozen species of these snakes. The pit vipers occur in all types of terrain and may be found in the trees or on the ground. The tree snakes are slender; the ground snakes are thicker and heavy-bodied. Only the larger ones are dangerous. One of the pit vipers of China is a *moccasin* similar to those found in North America; it occurs in the rocky areas of the remote mountains of South China; it attains a length of 4½ feet but is not vicious unless irritated. A small pit viper, about 1½ feet long, is found often on the plains of Eastern China; it is too small to prove dangerous to a man wearing shoes.

POSITIVE IDENTIFICATION OF VIPERS: Vipers and pit vipers have two long and distinctive fangs; none of the other teeth are comparable in size. Fangs may be covered with a curtain of flesh or folded back into the mouth.



SEA SNAKES

Description: These snakes have a flattened oarlike tail and are distinguished from eels by the fact that the snakes have scales and the eels do not. Sea snakes vary widely in color and shape; they average in length from 4 to 5 feet, but sometimes reach a length of 8 to 10 feet.

Habits: Sea snakes occur along the coasts, but also are found at the mouths of some of the larger rivers. The bite of these snakes is dangerous but rare. Sea snakes sometimes may be seen in large numbers but they seldom will bite unless they are handled. They are not known deliberately to attack a man in the water.

